

In the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

- 1 1. (Canceled)
- 1 2. (Canceled)
- 1 3. (Canceled)
- 1 4. (Previously Amended) A method for reinforcing a structure comprising:
 - 2 disposing a high-ductility material on an outer circumferential
 - 3 surface of a member of the structure to restrain expansion of apparent
 - 4 volume accompanying rupture of the member, to thereby control rupture
 - 5 of the member;
 - 6 winding the high-ductility material by a single turn at a winding start
 - 7 end of the member;
 - 8 winding the high-ductility material spirally while a number of
 - 9 overlap turns is sequentially increased until a predetermined maximum
 - 10 number of overlap turns is reached;
 - 11 winding the high-ductility material spirally while the maximum
 - 12 number of overlap turns is maintained along a predetermined length of
 - 13 member; and
 - 14 winding the high-ductility material spirally while the number of
 - 15 overlap turns is sequentially decreased such that the high-ductility
 - 16 material is wound by a single turn at a winding termination end of the
 - 17 member.
- 1 5. (Canceled)
- 1 6. (Canceled)

1 7. (Canceled)

1 8. (Canceled)

1 9. (Canceled)

1 10. (Canceled)

1 11. (Canceled)

1 12. (Canceled)

1 13. (Canceled)

1 14. (Canceled)

1 15. (Canceled)

1 16. (Previously Amended) A configuration for reinforcing a structure
2 comprising:

3 a high-ductility material configured to be disposed on an outer
4 circumferential surface of a member of the structure of elastically restrain
5 expansion of apparent volume accompanying rupture of the member, to
6 thereby control rupture of the member,

7 wherein the high-ductility material comprises a fiber origin or
8 rubber origin tape-like sheet material and is configured to be wound
9 spirally on an outer surface of the member in a fixed and overlapping
10 condition, and

11 wherein the high-ductility material is configured to be wound by a
12 single turn at a winding start end of the member, spirally while a number
13 of overlap turns is sequentially increased until a predetermined maximum

14 number of overlap turns is reached, spirally while the maximum number
15 of overlap turns is maintained along a predetermined length of the
16 member and spirally while the number of overlap turns is sequentially
17 decreased such that the high-ductility material is wound by a single turn
18 at a winding termination end of the member.

1 17. (Canceled)

1 18. (Canceled)

1 19. (Canceled)

1 20. (Canceled)

1 21. (Canceled)

1 22. (Canceled)

1 23. (Canceled)

1 24. (Canceled)

1 25. (Canceled)

1 26. (Canceled)

1 27. (Previously Amended) A method for reinforcing a structure comprising;
2 fixedly attaching a high-ductility covering material formed of a raw
3 material having an elastic modulus lower than that of a tie hoop to an
4 outer circumferential surface of an existing column supporting the
5 structure, to thereby cause the high-ductility covering material to bear a
6 load imposed on the column after the column is deformed;

7 wherein the high-ductility covering material comprises a plurality of
8 surrounding cores disposed around the column to be arranged at
9 predetermined intervals along a vertical direction, and a fiber origin or
10 rubber origin sheet material connecting the adjacent surrounding cores
11 along the vertical direction, to thereby assume a form of an integral
12 bellows-like reinforcement.

1 28. (Canceled)

1 29. (Previously Amended) A method for reinforcing a structure comprising:
2 disposing a high-ductility covering material formed of a raw
3 material having an elastic modulus lower than that of a tie hoop inside a
4 facing surrounding wall material disposed around an existing column
5 supporting the structure with a cavity interposed between the facing
6 surrounding wall material and the column, to thereby cause the high-
7 ductility covering material to bear a load imposed on the column after the
8 column is deformed;

9 wherein the high-ductility covering material comprises a plurality of
10 surrounding cores disposed around the column with the cavity interposed
11 between the plurality of surrounding cores and the column to be arranged
12 at predetermined intervals along a vertical direction, and a fiber origin or
13 rubber origin sheet material connecting the adjacent surrounding cores
14 along the vertical direction, to thereby assume a form of an integral
15 bellows-like reinforcement.

1 30. (Canceled)

1 31. (Previously Amended) A configuration for reinforcing a structure
2 comprising:

3 high-ductility covering material formed of a raw material having an
4 elastic modulus lower than that of a tie hoop configured to be fixedly

5 attached to an outer circumferential surface of a member supporting the
6 structure,

7 wherein the high-ductility covering material comprises a plurality of
8 surrounding cores configured to be disposed around the column to be
9 arranged at predetermined intervals along a vertical direction, and a fiber
10 origin or rubber origin sheet material connecting the adjacent surrounding
11 cores along the vertical direction, to thereby assume a form of an integral
12 bellow-like reinforcement.

1 32. (Canceled)

1 33. (Previously Amended) A configuration for reinforcing a structure
2 comprising:

3 a high-ductility covering material formed of a raw material having
4 an elastic modulus lower than that of a tie hoop configured to be disposed
5 inside a facing surrounding frame disposed around a member supporting
6 the structure with a cavity interposed between the facing surrounding
7 frame and the column,

8 wherein the high-ductility covering material comprises a plurality of
9 surrounding cores configured to be disposed around the column with the
10 cavity interposed between the plurality of surrounding cores and the
11 column to be arranged at predetermined intervals along a vertical
12 direction, and a fiber origin or rubber origin sheet material connecting the
13 adjacent surrounding cores along the vertical direction, to thereby
14 assume a form of an integral bellows-like reinforcement.

1 34. (Canceled)

1 35. (Canceled)

1 36. (Previously Amended) A high-ductility covering material comprising:

2 a plurality of surrounding cores configured to be disposed around a
3 member to be arranged at predetermined intervals along a vertical
4 direction; and

5 a fiber origin or rubber origin sheet material connecting the
6 adjacent surrounding cores along the vertical direction, to thereby
7 assume a form of an integral bellows-like reinforcement.

1 37. (Previously Amended) A high-ductility covering material comprising:

2 a plurality of surrounding cores configured to be disposed around a
3 member with a cavity interposed between the plurality of surrounding
4 cores and the member to be arranged at predetermined intervals along a
5 vertical direction; and

6 a fiber origin or rubber origin sheet material connecting the
7 adjacent surrounding cores along the vertical direction, to thereby
8 assume a form of an integral bellows-like reinforcement.

1 38. (Canceled)

1 39. (Canceled)

1 40. (Previously Presented) A method for reinforcing a structure comprising:

2 fixedly attaching a high-ductility material having an initial elastic
3 modulus lower than an elastic modulus of concrete to an outer
4 circumferential surface of a member of the structure to restrain expansion
5 of apparent volume accompanying rupture of the member, to thereby
6 control rupture of the member and support of a portion of the load of the
7 structure after rupture of the member; and

8 determining an amount of the material to attach based on a load of
9 the member and an amount of a deformation in a peripheral direction
10 allowed by the member.